

**REMARKS**

The Office Action dated July 24, 2003, has been received and carefully considered. In this response, claims 1, 3, 5, 6, 8-10, 12-21, 23, and 24 have been amended, and claim 7 has been cancelled without prejudice. Entry of the amendments to claims 1, 3, 5, 6, 8-10, 12-21, 23, and 24 is respectfully requested. Reconsideration of the outstanding rejections in the present application is also respectfully requested based on the following remarks.

Applicant notes with appreciation the indication on page 5 of the Office Action that claims 23 and 24 are allowed.

Applicant notes with equal appreciation the indication on page 5 of the Office Action that claims 2, 3, 11-16, 21, and 22 would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. However, Applicant has opted to defer rewriting the above-identified claims in independent form pending reconsideration of the arguments presented below with respect to the rejected claims.

I. THE ANTICIPATION REJECTION OF CLAIMS 1 AND 4

On page 2 of the Office Action, claims 1 and 4 were rejected under 35 U.S.C. § 102(b) as being anticipated by Graham et al.

(U.S. Patent No. 4,952,798). This rejection is hereby respectfully traversed with amendment.

Under 35 U.S.C. § 102, the Patent Office bears the burden of presenting at least a prima facie case of anticipation. In re Sun, 31 USPQ2d 1451, 1453 (Fed. Cir. 1993) (unpublished). Anticipation requires that a prior art reference disclose, either expressly or under the principles of inherency, each and every element of the claimed invention. Id. "In addition, the prior art reference must be enabling." Akzo N.V. v. U.S. International Trade Commission, 808 F.2d 1471, 1479, 1 USPQ2d 1241, 1245 (Fed. Cir. 1986), cert. denied, 482 U.S. 909 (1987). That is, the prior art reference must sufficiently describe the claimed invention so as to have placed the public in possession of it. In re Donohue, 766 F.2d 531, 533, 226 USPQ 619, 621 (Fed. Cir. 1985). "Such possession is effected if one of ordinary skill in the art could have combined the publication's description of the invention with his own knowledge to make the claimed invention." Id.

Regarding claim 1. the Examiner asserts that Graham et al. teach describe an optical jumper as claimed. However, Graham et al. do not claim, disclose, or even suggest an optical jumper having an optical fiber that has an inner bend radius greater than approximately 0.4 inches so as to reduce optical loss

therein, as presently claimed. In fact, Graham et al. teach away from reducing optical loss in optical fibers as the loop-back attenuators as taught by Graham et al. are actually purposefully designed to inflict optical losses in optical fibers. As stated in MPEP § 2141.02, a prior art reference must be considered in its entirety, i.e., as a whole, including portions that would lead away from the claimed invention. *W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983), cert. denied, 469 U.S. 851 (1984). Thus, it is respectfully submitted that claim 1 is not anticipated by Graham et al..

Claim 4 is dependent upon independent claim 1. Thus, since independent claim 1 should be allowable as discussed above, claim 4 should also be allowable at least by virtue of its dependency on independent claim 1.

In view of the foregoing, it is respectfully requested that the aforementioned anticipation rejection of claims 1 and 4 be withdrawn.

## II. THE OBVIOUSNESS REJECTION OF CLAIMS 5-8

On page 3 of the Office Action, claims 5-8 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Graham et al.. This rejection is hereby respectfully traversed.

As stated in MPEP § 2143, to establish a prima facie case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in applicant's disclosure. In re Vaeck, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). Also, as stated in MPEP § 2143.01, obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. In re Fine, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988); In re Jones, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. In re Mills, 916 F.2d 680, 16 USPQ2d 1430 (Fed.

Cir. 1990). Further, as stated in MPEP § 2143.01, to establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. In re Royka, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). That is, "[a]ll words in a claim must be considered in judging the patentability of that claim against the prior art." In re Wilson, 424 F.2d 1382, 165 USPQ 494, 496 (CCPA 1970). Additionally, as stated in MPEP § 2141.02, a prior art reference must be considered in its entirety, i.e., as a whole, including portions that would lead away from the claimed invention. W.L. Gore & Associates, Inc. v. Garlock, Inc., 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983), cert. denied, 469 U.S. 851 (1984). Finally, if an independent claim is nonobvious under 35 U.S.C. 103, then any claim depending therefrom is nonobvious. In re Fine, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988).

The Examiner asserts that Graham et al. teach an optical jumper substantially as claimed, except that Graham et al. does not specifically describe the connectors as approximately 1 inch apart or the inner bend radius of the optical fiber greater than approximately 0.4 inches. However, the Examiner then asserts that since Graham et al. do teach an optical fiber of 5.5 inches in length, it would have been obvious in view of Graham et al.

to have a connector spacing of approximately 1 inch and an inner bend radius greater than approximately 0.4 inch.

First of all, an optical fiber having a length of 5.5 inches is in no way restricted to having its ends placed within 1 inch of each other and its inner bend radius greater than 0.4 inches. In fact, Graham et al. do not even mention these parameters, particularly in the context of reducing optical loss in the optical fiber, as presently claimed. In fact, Graham et al. even teach away from such parameters in such a context, as discussed above and below.

Secondly, claims 5, 6, and 8 are dependent upon independent claim 1. Thus, since independent claim 1 should be allowable as discussed above, claims 5, 6, and 8 should also be allowable at least by virtue of their dependency on independent claim 1. Moreover, these claims recite additional features which are not claimed, disclosed, or even suggested by Graham et al.. For example, Graham et al. do not claim, disclose, or even suggest placing the first and second connectors approximately 1 inch apart so as to reduce optical loss in the optical fiber, as presently claimed. Also, Graham et al. do not claim, disclose, or even suggest placing the first and second connectors between approximately  $\frac{1}{2}$  and approximately  $1\frac{1}{2}$  inches apart so as to reduce optical loss in said optical fiber, as presently claimed.

Furthermore, Graham et al. do not claim, disclose, or even suggest providing the optical fiber with an inner bend radius between approximately 0.4 inches and 0.75 inches so as to reduce optical loss therein, as presently claimed. In fact, Graham et al. teach away from such features as the loop-back attenuators as taught by Graham et al. are actually purposefully designed to inflict optical losses in optical fibers. As stated in MPEP § 2141.02, a prior art reference must be considered in its entirety, i.e., as a whole, including portions that would lead away from the claimed invention. *W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983), cert. denied, 469 U.S. 851 (1984). Thus, it is respectfully submitted that claim 5, 6, and 8 would not have been obvious in view of Graham et al..

At this point it should be noted that claim 7 has been cancelled without prejudice, and the substantial limitations of claim 7 have been incorporated into claim 1.

In view of the foregoing, it is respectfully requested that the aforementioned obviousness rejection of claims 5-8 be withdrawn.

III. THE OBVIOUSNESS REJECTION OF CLAIM 9

On pages 3-4 of the Office Action, claim 9 was rejected under 35 U.S.C. § 103(a) as being unpatentable over MacDonald et al. (U.S. Patent No. 5,751,454). This rejection is hereby respectfully traversed.

The Examiner asserts that MacDonald et al. substantially describe the present invention as claimed despite the fact that MacDonald et al. fail to describe: 1.) ports connected to the pluralities of fiber optic lines; 2.) an optical jumper having first and second connectors attached to respective ends of a fiber; and 3) optical jumpers in any manner. Despite these shortcomings, the Examiner still asserts that it would have been obvious in view of MacDonald et al. to provide an optical add/drop system as claimed.

In response, Applicant notes that the Examiner conveniently refers to bypass signals (BP) as optical jumpers. This interpretation of the teachings of MacDonald et al. by the Examiner is interesting to say the least. But interest aside, Applicant respectfully requests the Examiner to reconsider this interpretation. As can be plainly seen and understood from the figures and text of MacDonald et al., the bypass signals (BP) should in no way be interpreted as optical jumpers. That is, the bypass signals (BP) of MacDonald et al. pass directly from



one WDM to another WDM, without any intervening connections. Specifically, MacDonald et al. do not claim, disclose, or even suggest the presence of any intervening connections between WDM's. Indeed, since the appropriately named bypass signals (BP) of MacDonald et al. pass directly between two WDM's, there would be no need for any intervening connections.

In contrast, the present application claims optical jumpers interconnected between optical fibers, which are separately connected to WDM's. There would be no reason to add such optical jumpers to the bypass node of MacDonald et al. because the appropriately named bypass signals (BP) of MacDonald et al. pass directly from one WDM to another WDM, without any need for intervening connections. As detailed in the specification of the present application, the optical jumpers are useful for adding and/or dropping optical signals. However, since the appropriately named bypass signals (BP) of MacDonald et al. are never added or dropped, there would be no reason to allow for such a feature.

Furthermore, as demonstrated by MacDonald et al., adding and dropping of optical signals has heretofore been handled by integrated optical cross-connect devices. These devices do not allow for manual interconnection of optical signals between differing optical fibers using optical jumpers, as does the

present invention as claimed. Thus, it is respectfully submitted that claim 9 would not have been obvious in view of MacDonald et al..

In view of the foregoing, it is respectfully requested that the aforementioned obviousness rejection of claim 9 be withdrawn.

IV. THE OBVIOUSNESS REJECTION OF CLAIMS 10 AND 17-20

On pages 4-5 of the Office Action, claims 10 and 17-20 were rejected under 35 U.S.C. § 103(a) as being unpatentable over MacDonald et al. in view of Graham et al.. This rejection is hereby respectfully traversed.

The Examiner acknowledges that MacDonald et al. do not teach any features of an optical jumper as claimed, but asserts that the attenuator of Graham et al. sufficiently describes such features such that the present invention as claimed would have been obvious in view of their combination.

First of all, as described above, MacDonald et al. and Graham et al. do not make any mention of placing the ends of an optical fiber within 1 inch of each other and providing an inner bend radius greater than 0.4 inches, particularly in the context of reducing optical loss in the optical fiber, as presently

claimed. In fact, Graham et al. even teach away from such parameters in such a context, as discussed above.

Secondly, claims 10 and 17-20 are dependent upon independent claim 9. Thus, since independent claim 9 should be allowable as discussed above, claims 10 and 17-20 should also be allowable at least by virtue of their dependency on independent claim 9. Moreover, these claims recite additional features which are not claimed, disclosed, or even suggested by MacDonald et al. and/or Graham et al., either alone or in combination. For example, as discussed above, MacDonald et al. do not claim, disclose, or even suggest optical jumpers in any manner. Also, Graham et al. do not claim, disclose, or even suggest placing the first and second connectors approximately 1 inch apart so as to reduce optical loss in the optical fiber, as presently claimed. Furthermore, Graham et al. do not claim, disclose, or even suggest placing the first and second connectors between approximately  $\frac{1}{2}$  and approximately  $1\frac{1}{2}$  inches apart so as to reduce optical loss in said optical fiber, as presently claimed. Additionally, Graham et al. do not claim, disclose, or even suggest providing the optical fiber with an inner bend radius between approximately 0.4 inches and 0.75 inches so as to reduce optical loss therein, as presently claimed. In fact, Graham et al. teach away from such features as the loop-back attenuators

as taught by Graham et al. are actually purposefully designed to inflict optical losses in optical fibers, as discussed above. As stated in MPEP § 2141.02, a prior art reference must be considered in its entirety, i.e., as a whole, including portions that would lead away from the claimed invention. *W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983), cert. denied, 469 U.S. 851 (1984). Thus, it is respectfully submitted that claims 10 and 17-20 would not have been obvious in view of MacDonald et al. and/or Graham et al..

In view of the foregoing, it is respectfully requested that the aforementioned obviousness rejection of claims 10 and 17-20 be withdrawn.

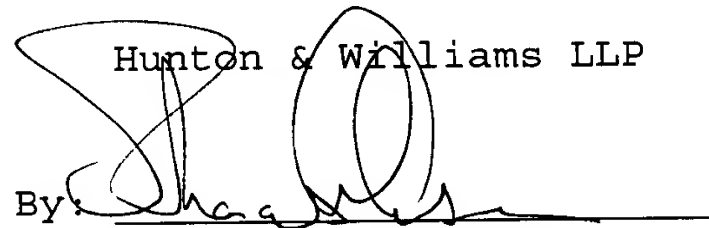
V. CONCLUSION

In view of the foregoing, it is respectfully submitted that the present application is in condition for allowance, and an early indication of the same is courteously solicited. The Examiner is respectfully requested to contact the undersigned by telephone at the below listed telephone number, in order to expedite resolution of any issues and to expedite passage of the present application to issue, if any comments, questions, or suggestions arise in connection with the present application.

To the extent necessary, a petition for an extension of time under 37 CFR § 1.136 is hereby made.

Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account No. 50-0206, and please credit any excess fees to the same deposit account.

Respectfully submitted,

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